

WE CLAIM:

1. A method of controlling the operation of a valve, comprising automatically determining a condition; automatically comparing the condition to a desired condition determined by a profile; automatically determining an adjustment to the valve; and adjusting the valve during the operation of the valve.

2. The method of claim 1, wherein the step of automatically determining the condition comprises sensing the pressure at an inlet of the valve.

3. The method of claim 1, wherein the step of automatically determining the condition comprises sensing the position of a valve member of the valve.

4. The method of claim 1, wherein the profile determines desired conditions for a desired reduction in speed of a moving craft during a predetermined cycle.

5. The method of claim 4, wherein the step of comparing comprises comparing the condition to a profile for determining a desired position of the craft at a point during the cycle.

6. The method of claim 4, wherein the profile determines the desired conditions for a plurality of points during the cycle for achieving a desired reduction in speed for a predetermined stopping distance.

7. The method of claim 1, wherein the step of adjusting the valve comprises moving a valve member of the valve to a position determined by the profile.

8. The method of claim 1, wherein the steps of automatically determining the condition, automatically determining an adjustment and adjusting the valve comprise repeatedly monitoring the condition determining an adjustment and adjusting the valve.

9. The method of claim 1, further comprising receiving data concerning a value to be used in determining the adjustment, the value being selected from the group

consisting of: the type of craft, the speed of the craft, and the weight of the craft.

10. The method of claim 1, further comprising selecting the profile from a plurality of profiles.

11. The method of claim 10, wherein the profile is selected depending upon a value selected from the group consisting of: the type of craft, the speed of the craft and the weight of the craft.

12. The method of claim 1, further comprising testing the operability of the valve.

13. The method of claim 1, further comprising determining the operability of at least one driver for driving movement of a valve member of the valve.

14. The method of claim 13, wherein the at least one driver comprises a first driver and a second driver and further comprising, in the event that the first driver is inoperable, connecting the second driver to the valve member.

15. A valve control system for controlling the operation of a valve, comprising:

a) at least one sensor for sensing a sensed condition;

b) a controller arranged to actively control operation of the valve during a predetermined cycle according to a predetermined profile determining a desired condition during said cycle; and

d) a driver arranged with said controller and adapted to move the valve to a position;

e) said position of the valve being adjusted during said cycle to conform said sensed condition to said desired condition.

16. The system of claim 15, wherein said at least one sensor comprises a sensor arranged for sensing said sensed condition, said sensed condition being selected from a group of conditions consisting of: a pressure at an inlet of the valve, and said position of the valve.

17. The system of claim 15, wherein said controller comprises a computer adapted to receive data from said at least one sensor concerning said sensed condition.

18. The system of claim 17, wherein said controller includes a memory storage device in which said profile is stored.

19. The system of claim 18, wherein said controller includes a processor under control of programs and a program executable by said processor, said program being adapted to compare said sensed condition with said desired condition.

20. The system of claim 19, wherein said program is arranged to determine an adjustment to said position of the valve, based upon said profile.

21. The system of claim 17, wherein said controller communicates with a driver adapted to move a valve member of the valve to an adjusted position determined by said profile.

22. The system of claim 15, wherein said profile determines said desired condition so as to achieve a decrease in the speed of a moving craft.

23. The system of claim 15, wherein said sensed condition comprises a first sensed condition, said controller being arranged to accept said first sensed condition from said at least one sensor, communicate with a driver so as to adjust said position of the valve, accept a second sensed condition from said at least one sensor and readjust said position of the valve.

24. The system of claim 23, wherein said desired condition comprises a first desired condition determined by said profile for a first point in time during said cycle and wherein said profile determines a second desired condition for a second point in time during said cycle.

25. The system of claim 15, further comprising a first driver and a second driver, said first driver and said

second driver being alternately connectible with the valve and controlled by said controller, and further comprising a first monitor and a second monitor.

26. The system of claim 25, wherein said controller comprises a first controller and further comprising a first monitor for receiving data from said at least one sensor.

27. The system of claim 26, wherein said first driver, said first monitor and said first controller comprise a first channel, and further comprising a second controller and a second monitor, said second driver and said second monitor being arranged with said second controller.

28. The system of claim 27, wherein said at least one sensor comprises at least one first sensor and at least one second sensor, said at least one first sensor being connected to said first monitor and said first controller and said at least one second sensor being connected to said second monitor and said second controller.